

Heartworm Disease

Heartworm disease is an infection caused by the adult stage of the parasite *Dirofilaria immitis*. The infection may cause inflammation and thickening of a dog or cat's pulmonary arteries, damage to the heart, liver and kidneys, and, if untreated, can lead to heart disease and death.

Risk Factors Although camping and other outdoor activities in areas that have high mosquito counts, such as Southern Oregon, increase your pet's risk of coming into contact with disease-carrying mosquitoes, cases of heartworm are regularly reported throughout the state of Oregon. Mosquito populations are capable of rising rapidly if conditions are warm and wet. Dogs, cats, ferrets and wild canids, including coyotes, are potential reservoirs of infection.

Transmission Mosquitoes carry the parasite that causes heartworm disease from animal to animal. The life cycle of a heartworm begins when a mosquito bites an infected animal carrying heartworm microfilariae in its blood. If that mosquito bites another cat or dog, it transmits the larvae to that animal. The larvae mature into adult worms in the heart and lungs of the host animal. The adult worms can reproduce, creating microfilariae about 6-9 months after the initial mosquito bite.

Symptoms If your pet shows these symptoms, it should be examined by a veterinarian.

Dogs: Chronic cough (the most common symptom and a sign of advanced illness), lack of energy or endurance, difficulty breathing, loss of appetite or weight loss

Cats: Cough, difficulty breathing, vomiting, sluggishness or weight loss

Diagnosis Your veterinarian may perform a blood test to determine whether your pet has the disease. The sample may also be examined under a microscope for the presence of heartworm larvae. More laboratory tests may be required to make a diagnosis. In most cases, preventative medication is not prescribed until the animal tests negative for a current infection. Yearly testing is recommended by the American Heartworm Society (heartwormsociety.org).

Treatment Treatment options are different for dogs and cats.

Dogs: If detected early enough, most dogs can be treated successfully. The goal of treatment is to kill both the adult heartworms and the larvae; it requires hospitalization and close supervision by a veterinarian. Currently, there is only one drug approved by the FDA for the elimination of adult heartworms in dogs, an organic arsenical compound. In August 2011, Merial, the only manufacturer of this drug, reported issues which have caused them to stop manufacturing it. Due to the uncertainty of this ongoing situation, it's best to talk with your veterinarian about current treatment guidelines.

Cats: Currently, there is no approved product for the treatment of heartworm disease in cats. However, a spontaneous cure is not uncommon in felines, so treatment is aimed at helping them tolerate the disease, rather than eliminate it.

Prevention When you protect your pet, you are helping to protect other pets in your community by reducing the number of reservoirs available for infection and transmission. A yearly examination coupled with preventative treatment is recommended. There are a variety of options for preventing heartworm infection, including tablets, chewables, topicals and a six-month injectable product. Talk with your veterinarian about your pet's individual risk factors to determine how often your pet should be tested and if preventative care is appropriate and necessary.



Prevention is simple compared to the expense and risk of treatment.

Talk with your veterinarian about testing and the appropriate preventative treatment to help keep your best friend safe from heartworm disease.



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